

**METHODS AND APPARATUS FOR CLUSTERING AND PREFETCHING
DATA OBJECTS**

Abstract of the Disclosure

Techniques for managing data objects in conjunction with a computer system are provided. In a technique for clustering data objects on a disk storage device, the invention comprises maintaining a log of at least a portion of accesses (e.g., read and/or write operations) to the data objects; determining from the maintained log a cluster comprised of data objects accessed at substantially similar times; and storing the data objects comprising the cluster in close proximity to one another on the disk storage device. In a technique for prefetching data objects on a disk storage device, the invention comprises receiving a request for a data object in a cluster; determining from the log a probability that at least one other data object in the cluster may be subsequently requested; and, in response to the probability being not less than a predetermined value, retrieving both the requested data object and the at least one other data object. Such clustering and prefetching techniques substantially reduce the number of storage device seeks.

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